

Date: Fri, 26 Nov 93 04:30:21 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #124
To: Ham-Ant

Ham-Ant Digest Fri, 26 Nov 93 Volume 93 : Issue 124

Today's Topics:

 End-fed Zepp experiences ?
 FAQ Is there one for this group?
 Need advise on AM radio ant. & reception (2 msgs)
 Rugged 2 meter antenna.
 Skywire Antenna (2 msgs)
 The Best UHF/VHF TV antenna
 Tower Guy Anchors

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 24 Nov 93 15:12:33 -0700
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!
mrtnt.ntrs.com!tntvax!rs2@network.ucsd.edu
Subject: End-fed Zepp experiences ?
To: ham-ant@ucsd.edu

Would anyone care to share any experiences they have had with end-fed Zepp
antennas? I'm refering to longwires fed at their ends with balanced line?
Lenght, height, type of balanced line, tuner, etc.?

de Richard, W9RS

Please answer direct to: steck.richard@ntrs.com

Ylo Mets.

Institute of Chemical Physics & Biophysics,
Tallinn,
Estonia.

> Gary

> --

> Gary Coffman KE4ZV | Where my job's going, | gatech!wa4mei!ke4zv!gary
> Destructive Testing Systems | I don't know. It might | uunet!rsiatl!ke4zv!gary
> 534 Shannon Way | wind up in Mexico. | emory!kd4nc!ke4zv!gary
> Lawrenceville, GA 30244 | -NAFTA Blues |

Date: Tue, 23 Nov 1993 17:32:09 GMT

From: ucsnews!sol.ctr.columbia.edu!news.kei.com!yeshua.marcam.com!usc!math.ohio-
state.edu!magnus.acs.ohio-state.edu!usenet.ins.cwru.edu!nigel.msen.com!ilium!
rcsuna.gmr.com!kocrsv01!c2xjcb@network

Subject: Need advise on AM radio ant. & reception

To: ham-ant@ucsd.edu

In article <CGvI21.57u@freenet.carleton.ca>, ab349@Freenet.carleton.ca (Todd J.
Cusolle) writes:

>

> The back of my sterio has ant. outputs that are like this:

>

>

> | 0 0 0 0 | 0=a wire connection screw

> | FM FMxxx AM GRD |

> | _____ |

>

> So if anyone knows of any ant. that could be attached (either bought or
> made) then I'd love to hear about it)

GRD terminal goes to a "good" earth ground.

AM terminal goes to the longest piece of wire you can manage to find
or put-up on your property. At 700KHz the 1/4-wavelength is 334ft,
so it would be one-heck-of-a vertical! A 1/2-wave dipole would be
about 668feet end-to-end (run "twin lead" from AM/GND terminals to
center of 668ft span; you could make an inverted VEE if you have a
hi-spot in your yard (like a tall tree or flag-pole) to shorten the
horizontal "Span".

It would be best if you could make the wire run "broadside" to the

direction facing the radio station you desire, but since you probably are mounting this a small fraction of a wavelength above ground it probably doesn't matter much.

--

James C. Bach	Ph: (317)-451-0455	The views & opinions expressed
Advanced Project Engr.	GM-NET: 8-322-0455	herein are mine alone, and are
Powertrain Strategy Grp	Amateur Radio: WY9F	NOT endorsed, sponsored, nor
Delco Electronics Corp.	Just say NO to UNIX!	encouraged by DE or GM.

Date: Tue, 23 Nov 1993 17:50:59 GMT
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!math.ohio-state.edu!
magnus.acs.ohio-state.edu!news.cic.net!condor.ic.net!iunet!grex!
n8nxf@network.ucsd.edu
Subject: Rugged 2 meter antenna.
To: ham-ant@ucsd.edu

I want to build a simple, rugged and efficient antenna to mount on my bicycles and kayak. I often help out with triathelons, mountain bike events, etc. I don't like sitting in a car, preferring to be mobile on the course. I need an antenna that can be whacked by trees and still preform well in hilly terrain. It seems to me that a J would be the best choice.

Most of the J (J pole?) antenna articles I've come across show the antenna connected directly to 50 ohm coax. One article showed a 4 to 1 coaxial balun connected to the antenna. The claim was that doing so would reduce the effects nearby objects would have on SWR. Is this true? Is a J a balanced or unbalanced antenna? Should I consider some other antenna or antenna matching technique? The match used on the Ringo Ranger looks rather interesting and simple.

At the moment I am considering cutting down a 1/4 wave stainless CB antenna for my J antenna with rugged spacers to maintain the distance between the 3/4 and 1/4 wave elements. That may then be mounted on a spring mount... Weight is important too.

Date: 22 Nov 1993 20:30:28 GMT
From: nntp.ucsb.edu!library.ucla.edu!agate!howland.reston.ans.net!math.ohio-state.edu!news.acns.nwu.edu!casbah.acns.nwu.edu!rdewan@network.ucsd.edu
Subject: Skywire Antenna
To: ham-ant@ucsd.edu

In article <1993Nov22.195427.6475@sol.asl.hitachi.com>,
Joshua Koslov <josh@sol.asl.hitachi.com> wrote:

>Anyone have any experience with the "loop skywire" antenna? For those unfamiliar,
>it is a horizontally-oriented loop antenna, one wavelength at fundamental, which
>is resonant on all (not just odd) harmonics. It appeared in Nov. 1985 QST and in
>the Handbook. Just wondering whether anyone has comments on its performance...
>

I have a 80m skywire up 22 feet. It is connected with a hunk of 9913 to my tuner. I have used on all the bands. I have worked many stations that were using this antenna. My most memorable contact was with a station in Texas which was using a skywire loop. I was copying him, both, long and short path. The echo was unmistakable.

I am primarily intersted in DXing and consequently I worry about low angle performance. I have a Cushcraft AP8 vertical mounted 15' off the ground with 4 radials for each band. It is better than the skywire loop on every band. If you can get your skywire loop high, much higher than mine, your experience should be different and better.

Rajiv
aa9ch
r-dewan@nwu.edu

Date: Wed, 24 Nov 1993 08:45:34 GMT
From: hearst.acc.Virginia.EDU!maxwell!lmw6k@uunet.uu.net
Subject: Skywire Antenna
To: ham-ant@ucsd.edu

I have a 40 meter full wave loop that loads on 40, 20 and 15, and is without any doubt the best wire antenna I've ever used- I worked Mayotte Island on 20 at midnite with it just a few months ago (barefoot, too...) I have read about wormwarmers, but never tried one. On 160, though I think I'll do a little experimenting...
N4och

Date: Tue, 23 Nov 93 19:31:18 CST
From: newsflash.concordia.ca!canopus.cc.umanitoba.ca!bison!sys6626!dufus@uunet.uu.net
Subject: The Best UHF/VHF TV antenna
To: ham-ant@ucsd.edu

> My experience has been that antenna mounted amplifiers are extremely
> beneficial especially at UHF. Yes, the \$7 Radio Shack ones that

> are really intended for cable are junk. But the ones Wineguard sells
> that fit into the built in housings on their antennas are excellent,
> although the 4 dB. NF could be improved upon with a homebrew GaAsFET
> amplifier. I paid \$35 for my Winegard amplifier and it doubled the
> number of stations I could receive. It also allowed me to use my
> crummy VCR UHF tuner instead of just the good tuner in the TV set.
> By the way, I was already using Wineguard's top of the line UHF-
> only full band antenna (15 dB. gain, 12 foot boom) at 70 feet.
>
> Rick Karlquist N6RK
> rkarlqu@scd.hp.com

Well, if you live in an area where there is VERY little static or other interference then an amplifier will do you some good, BUT if you live in an area with a good deal of static and far away from the station ie: Rural town then an amplifier will do you little or no good at all. The reason for this is: The amplifier amplifies ALL signals including the noise, therefore amplifying the signal brought in from the antenna won't do you good at all. You best bet would be to get a good long antenna with narrow lobes (directions of good reception) and a good rotator with very fine adjustments.

That's my 2c.

Tony Mantler

Date: 19 Nov 1993 09:19:32 CST
From: ftpbox!mothost!schbbs!maccvm.corp.mot.com!CSLE87@uunet.uu.net
Subject: Tower Guy Anchors
To: ham-ant@ucsd.edu

I hate to have to interrupt your trains of thought to inject a bit of reality here, but keep in mind that the third leg of the triangle is the earth. When (other than CA earthquakes) was the last time you had to adjust the length of your telephone drop wire or electric service because the pole moved closer or further away from the house?? I've heard that poles have jumped in front of cars, usually driven by well-intoxicated drivers, but Ma Nature doesn't have to adjust its equatorial belt by a notch or two as the seasons change.

----- Original Article -----
Path: schbbs!mothost!ftpbox!news.acns.nwu.edu!casbah.acns.nwu.edu!rdewan
From: rdewan@casbah.acns.nwu.edu (Rajiv Dewan)
Newsgroups: rec.radio.amateur.antenna
Subject: Re: Tower Guy Anchors
Date: 17 Nov 1993 16:03:49 GMT
Organization: Northwestern University, Evanston IL USA

Lines: 45

Message-ID: <2cdi15\$jj6c@news.acns.nwu.edu>

References: <1993Nov4.162453.10770@ccd.harris.com> <1993Nov5.061202.27862@ke4zv.

NNTP-Posting-Host: unseen1.acns.nwu.edu

In article <1993Nov16.174711.22720@stsci.edu>,

Phil Hodge <hodge@stsci.edu> wrote:

>

>Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

>: If you can get access to a cable tension gauge, set the guy tension to

>: 50-75 pounds depending on temperature, the tower will "grow" in warm

>: weather so use the higher tension setting then. The guys will loosen in

>: cold weather as the tower shrinks.

>: Gary

>

>Why don't the cables "grow" together with the tower in warm weather?

>Are they made of such different materials that their coefficients of

>expansion are significantly different? For long cables I guess a small

>difference could be significant.

>

> Phil, WD8PHO

You are neglecting to consider the third leg of the triangle: Ground.

Its expansion is not going to be that of steel. This causes all the

difference. If you take that into account and assume that the expansion

rate of ground is more than that of steel, then as I have shown below,

the tension will increase in warm weather and decrease in cold.

---- Now for some simple math to justify the above statement -----

To simplify, assume that the expansion rate of ground is zero.

Define 'cold' and 'high' to be some appropriate temperature

height of tower, cold	h
distance from guy anchor to tower	g
expansion rate of steel, from cold to warm	a
expansion rate of ground, from cold to warm	b
guy length needed (constant tension)	$\text{sqrt}[(1+a)^2 \cdot h^2 + (1+b)^2 \cdot g^2]$
guy length after expansion (const tension)	$(1+a) \cdot \text{sqrt}[h^2 + g^2] = \text{sqrt}[(1+a)^2 \cdot h^2 + (1+a)^2 \cdot g^2]$

So if $a < b$ then tension will be higher in summer. So if there a minimum tension that is to be maintained then summer installations should be at a higher tension settings.

Question: Is the expansion rate of ground more than that of steel?

Rajiv

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End of Ham-Ant Digest V93 #124

